UNITED STATES DISTRICT COURT WESTERN DISTRICT OF WASHINGTON AT SEATTLE

JONATHAN BERALL, M.D., M.P.H.,

Case No. C21-944-RSM

Plaintiff,

ORDER RE: CLAIMS CONSTRUCTION

v.

VERATHON INC.,

Defendant.

I. INTRODUCTION

This matter comes before the Court on the parties' briefs regarding Claim Construction. Dkts. #369 and #370. Oral argument was held on May 6, 2022, pursuant to *Markman v. Westview Instruments, Inc.*, 52 F.3d 967 (Fed. Cir. 1995). Having reviewed all of the parties' briefing, and having considered the arguments and evidence presented in the *Markman* Hearing, the Court makes the following rulings regarding the patent claim terms at issue.

II. BACKGROUND

Plaintiff Dr. Jonathan Berall alleges Defendant Verathon has infringed Patent No. 5,827,178 ("the Berall Patent"), titled "Laryngoscope for Use in Trachea Intubation."

A laryngoscope is an essential tool used by physicians, emergency medical technicians, and other medical practitioners to insert an endotracheal breathing tube ("ETT") into a patient's

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trachea, a procedure known as "intubation." Dkt. #373-1 ("Ex. 1"), 1:22-26, Abstract, 1:5-10, 1:44-49.

The ETT provides life-saving oxygen to the non-breathing patient, like the majority of those under general anesthesia, or critically ill or injured patients. Ex. 1, 1:66–2:6; Dkt. #373-19 ("Ex. 7") (U.S. Patent No. 5,263,472), 1:16–41. "Even in the best situations, intubation is often difficult and can give rise to complications." Dkt. #373-18 ("Ex. 6") (U.S. Patent. No. 5,363,838 ("George '838")), 1:17–19; see also Ex. 1, 2:1–2. But intubation must often be performed in awkward emergency sites, significantly increasing difficulty. Ex. 1, 2:2–4; Ex. 6, 1:26–28; Dkt. #373-2 ("Ex. 2") at 34–35. It is essential to intubate critically injured patients rapidly, as even brief oxygen deprivation can result in death or severe brain damage. Ex. 1, 1:35-41, 2:4-6; Ex. 6, 1:28-33; Ex. 7, 1:37-41. In the typical intubation procedure, the Professional Intubator first grasps the handle of the laryngoscope in his or her nondominant hand. Ex. 1, 1:44–53, 2:41–44, Figs. 1–2. A laryngoscope has a structure called a "blade" that extends laterally from the handle. Ex. 1, 2:36–46, 5:5–21, 5:57–62. The end of the blade nearest (most proximal to) the handle is the "proximal end," and the end that is furthest (most distant from) the handle is the "distal end." Ex. 1, 5:13–21 & Figs. 2–4 (items 24–25). The blade is inserted into the patient's mouth to manipulate the tongue and other anatomical structures, exposing the trachea. Ex. 1, 5:5–13, 5:15–18. While the Intubator holds the laryngoscope (and thus the oral structures) steady using the non-dominant hand, in the dominant hand he or she operates an intubating instrument (such as a stylet rod) to which the ETT is attached, and guides the ETT behind the base of the tongue and into the trachea. Id., 1:44-49.

Traditional laryngoscopes had no camera—instead they required the Intubator to use the laryngoscope to manipulate the oral structures to view the patient's trachea directly by eye, an approach now referred to as "direct laryngoscopy." *See* Ex. 6, 5:25–46 (describing use of a "standard laryngoscope"), Fig. 3 (parts 31, 33); Dkt. #373-20 ("Ex. 8"), 1:19–25; Dkt. #373-21 ("Ex. 9") at 1–2. A major challenge in direct intubation was that a direct line of sight into the patient's airway may be blocked, such that the Intubator cannot see the trachea and would have no choice but to attempt a "blind intubation." Ex. 1, 2:6–20, 2:30–35. For example, the tongue of a patient often slips over the blade, obstructing the physician's direct view of the tracheal opening, and vomiting, blood, abscesses, cancers, congenital abnormalities, and spasms can also obstruct the view. Ex. 1, 2:6–29; Ex. 6, 1:19–26. Blind intubation is extremely challenging and frequently unsuccessful. Ex. 1, 2:30–35; Ex. 6, 1:24–33.

Dr. Jonathan Berall, an emergency medicine physician, filed the application for the '178 Patent on January 2, 1997. This patent is for a laryngoscope that addresses many of the above problems by mounting a camera to the laryngoscope in a certain inventive way. *See* Ex. 1. Medical scopes "used in association with screens, video systems, tapes and discs" were well known prior to the '178 patent. *Id.* at 3:11-13. For example, the '178 patent describes earlier "[s]copes used for arthroscopy with screens set on a monitor off to one side of an operating room table." *Id.* In these systems "[t]he screen, and with it the monitoring images is removed from the direction of the operation." *Id.* at 3:16-18. As a result, use of such devices "is not an optimal answer for emergency intubation" because "the Professional Intubator has to turn his or her head and body off to the side to . . . look at the screen." *Id.* at 3:18-21, 3:32-35. The Berall Patent includes diagrams showing the display screen mounted on the handle of the

laryngoscope; this is the subject of at least some of the claims in the patent. The '178 Patent issued on October 27, 1998.

On July 30, 2010, after years of attempting to license the patent to various laryngoscope manufacturers practicing his invention, Dr. Berall filed the present action. Dkt. #1. This case was stayed almost nine years pending *ex parte* re-examinations filed by Verathon and former defendant Hoya, all of which were ultimately merged by the US PTO. *See* Dkt. #124. On January 4, 2019, the Patent Office confirmed the validity of the '178 Patent, concluding the prior art did not render the claimed inventions obvious. *See Ex Parte Berall*, 2019 WL 140713 (P.T.A.B. Jan. 4, 2019); Dkt. #124.

This case was transferred in from the Southern District of New York on July 15, 2021. See Docket.

Defendant Verathon is alleged to have infringed the Berall Patent, but further details about the company are irrelevant for this Order.

The parties have deferred a discussion of indefiniteness of claim terms to the summary judgment phase. Dkt. #367 at 2–3.

The parties submitted a Joint Claim Construction and Prehearing Statement that identified certain claim terms in dispute. Dkt. #367. The parties agree that "said power supply means" in claim 4 should be construed as "the power supply means of claim 3." The parties agree that the term "laryngoscope" in the preambles of claims 1 and 15 is limiting. The parties also submitted an 87-page chart containing their proposed constructions of and supporting evidence for the following terms:

Term	Dr. Berall's Construction	Verathon's Construction
"display means [for	Not means plus function, no	Means-plus-function.
displaying the visual	construction needed. If	Function: "displaying the
field at a preselected	construction is necessary:	visual field at a preselected

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location / for the Professional Intubator to see the field of view]"	"display." In the alternative, if means-plus-function, corresponding structure is "portable lightweight screen operatively connected to said camera."	location; displaying the field of view." Structure: "screen mountable to the laryngoscope." In the alternative, if determined not to be means-plus-function, "display means" should be construed as "screen mountable to the laryngoscope."
"at a preselected location"	No construction needed.	At a consistent location close to the intubator's direct line of sight to the patient's throat; not to the side.
"camera means [for observing a visual field]"	Not means-plus-function, no construction necessary. If construction is necessary: "camera." If means-plus-function, corresponding structure is "camera; <i>e.g.</i> , computer chip camera, videocamera."	Means plus function. Structure: "fiber optic scope or computer chip camera." Function: "observing a visual field."
"mounted on"	No construction needed. In the alternative, "fastened to."	Securely fastened to the exterior of.
"the blade having a proximal end connected to the handle and a distal end [projecting/ extending] laterally therefrom" "laryngoscope" in preamble	No construction needed; In the alternative, the plain and ordinary meaning is "the blade having a proximal end connected to the handle and a distal end [projecting/extending] to the side of the handle." "laryngoscope" in preamble of claims 1 and 15 is limiting. No further construction needed. If a construction is needed: "handheld medical instrument for examining the larynx."	The blade having a proximal end connected to the handle and a distal end extending sufficiently perpendicular from the handle to permit the intubator to view the trachea opening directly. "laryngoscope" should be construed as "an L-shaped handheld medical instrument consisting of a handle and a dull blade"

See Dkt. #367-1.

Claim 1 of the '178 Patent states:

A laryngoscope comprising: a handle and a blade, with the blade having a proximal end connected to the handle and a distal end

projecting laterally therefrom; camera means mounted on the blade in the vicinity of the distal end for observing a visual field; and display means operatively connected to said camera means for displaying the visual field at a preselected location.

Dkt. #373-1 (Ex. 1) at 9. Claim 4 states:

The laryngoscope as claimed in claim 3, wherein said power supply means are mounted in the handle.

Id. Claim 5 states:

The laryngoscope as claimed in claim 1, wherein said display means include a screen mounted on the handle and on which is displayed the visual field observed by the camera means.

Id.

III. LEGAL AUTHORITY

A. Claim Construction Principles

Patent claim construction is a question of law for the Court, even if the case is designated to go to a jury trial, but it may have underlying factual determinations that are now reviewed for clear error. *Teva Pharms. USA, Inc. v. Sandoz, Inc.*, 135 S. Ct. 831, 837, 190 L. Ed. 2d 719 (2015); *Markman v. Westview Instruments, Inc.*, 52 F.3d 967 (Fed. Cir. 1995) (en banc), aff'd, 517 U.S. 370, 116 S. Ct. 1384, 134 L. Ed. 2d 577 (1996). After the claims have been properly construed, the fact-finder will compare the claims to the allegedly infringing product or process. The comparison is conducted on an element-by-element basis.

When interpreting claims, a court's primary focus should be on the intrinsic evidence of record, which consists of the claims, the specification, and the prosecution history. *Phillips v. AWH Corp.*, 415 F.3d 1303, 1314-17 (Fed. Cir. 2005) (en banc). The Court should begin by examining the claim language. *Id.* at 1312. Claim language should be viewed through the lens of a person of "ordinary skill in the relevant art at the time of the invention." *SanDisk Corp. v.*

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Memorex Prods., Inc., 415 F.3d 1278, 1283 (Fed. Cir. 2005).¹ A court should give the claim's words their "ordinary and customary meaning." *Phillips*, 415 F.3d at 1312-13 (quotation omitted). In construing a claim term's ordinary meaning, the context in which a term is used must be considered. *ACTV, Inc. v. Walt Disney Co.*, 346 F.3d 1082, 1088 (Fed. Cir. 2003).

However, the claims "must be read in view of the specification, of which they are a part." Phillips, 415 F.3d at 1315 (quoting Markman, 52 F.3d at 979. Additionally, the doctrine of claim differentiation disfavors reading a limitation from a dependent claim into an independent claim. See InterDigital Commc'ns, LLC v. Int'l Trade Comm'n, 690 F.3d 1318, 1324 (Fed. Cir. 2012). The specification can offer "practically incontrovertible directions about a claim meaning." Abbott Labs. v. Sandoz, Inc., 566 F.3d 1282, 1288 (Fed. Cir. 2009). "When consulting the specification to clarify the meaning of claim terms, courts must take care not to import limitations into the claims from the specification." Id. "[A]lthough the specification may well indicate that certain embodiments are preferred, particular embodiments appearing in the specification will not be read into claims when the claim language is broader than such embodiments." Tate Access Floors, Inc. v. Maxcess Techns., Inc., 222 F.3d 958, 966 (Fed. Cir. 2000) (quotation omitted). "By the same token, the claims cannot enlarge what is patented beyond what the inventor has described in the invention." Abbott Labs., 566 F.3d at 1288 (internal quotation omitted). "Likewise, inventors and applicants may intentionally disclaim, or disavow, subject matter that would otherwise fall within the scope of the claim." *Id.* at 1288.

In addition to the specification, a court should consider the patent's prosecution history, which consists of "the complete record of the proceedings before the PTO and includes the prior art cited during the examination of the patent." *Phillips*, 415 F.3d at 1317. However,

¹ This person is referred to as a "POSITA" by the parties.

because the prosecution represents an "ongoing negotiation" rather than the "final product" of the negotiation, "it often lacks the clarity of the specification and thus is less useful for claim construction purposes." *Id.* Consulting the prosecution history can, however, be helpful in determining whether the patentee disclaimed an interpretation during prosecution. *Research Plastics, Inc. v. Federal Packaging Corp.*, 421 F.3d 1290, 1296 (Fed. Cir. 2005). "Under the doctrine of prosecution disclaimer, a patentee may limit the meaning of a claim term by making a clear and unmistakable disavowal of scope during prosecution." *Purdue Pharma L.P. v. Endo Pharm. Inc.*, 438 F.3d 1123, 1136 (Fed. Cir. 2006); *see also Chimie v. PPG Indus., Inc.*, 402 F.3d 1371, 1384 (Fed. Cir. 2005) ("The purpose of consulting the prosecution history in construing a claim is to 'exclude any interpretation that was disclaimed during prosecution."").

Although courts are permitted to consider extrinsic evidence, like expert testimony, dictionaries, and treatises, such evidence is generally of less significance than the intrinsic record. *Phillips*, 415 F.3d at 1317 (citing *C.R. Bard, Inc. v. U.S. Surgical Corp.*, 388 F.3d 858, 862 (Fed. Cir. 2004)). Extrinsic evidence may not be used "to contradict claim meaning that is unambiguous in light of the intrinsic evidence." *Id.* at 1324.

Means-plus-function claiming occurs when a claim term is drafted in a manner that invokes 35 U.S.C. § 112(f) (previously § 112, \P 6). Williamson v. Citrix Online, LLC, 792 F.3d 1339, 1347-48 (Fed. Cir. 2015). Under this provision, an inventor may express a claim element "as a means or step for performing a specified function." 35 U.S.C. § 112, \P 6. Means-plus function claims allow the inventor to claim his invention in terms of the function performed, as long as he discloses in the specification the structure that performs the associated function. See Med. Instrumentation & Diagnostics Corp. v. Elekta AB, 344 F.3d 1205, 1211 (Fed. Cir. 2003).

² The America Invents Act ("AIA") renumbered 35 U.S.C. \S 112, \P 6 to become 35 U.S.C. \S 112(f); the pre-AIA statute governs the '178 patent. *Williamson v. Citrix Online, LLC*, 792 F.3d 1339, 1343 n.2 (Fed. Cir. 2015).

The court must first determine whether each term is a means-plus-function limitation. To guide this inquiry, the Federal Circuit loosely follows a rebuttable presumption: if the claim term "uses the word 'means," it is presumed to be a means-plus-function limitation, but if the claim term does not use "means," it is presumed not to be. *Williamson*, 792 F.3d at 1348. The ultimate determination, however, depends upon whether claim would be understood by persons of ordinary skill in the art to give a sufficiently definite meaning for structure claimed. *Id*.

Construction of means-plus-function limitations involves two steps. "First, the court must determine the claimed function. Second, the court must identify the corresponding structure in the written description of the patent that performs that function." *Applied Med. Res. Corp. v. U.S. Surgical Corp.*, 448 F.3d 1324, 1332 (Fed. Cir. 2006) (citation omitted).

B. "Display means [for displaying the visual field at a preselected location / for the Professional Intubator to see the field of view]" (claims 1, 3, 13, 14, 15)

As stated above, "the use of the word 'means' in a claim creates a rebuttable presumption that § 112, para. 6 applies." *Williamson*, 792 F.3d at 1348. This presumption may be rebutted "if the claim itself recites sufficient structure to perform the claimed function." *Envirco Corp. v. Clestra Cleanroom, Inc.*, 209 F.3d 1360, 1364 (Fed. Cir. 2000); *see also Sage Prods., Inc. v. Devon Indus., Inc.*, 126 F.3d 1420, 1427-28 (Fed. Cir. 1997) ("[W]here a claim recites a function, but then goes on to elaborate sufficient structure, material, or acts within the claim itself to perform entirely the recited function, the claim is not in means-plus-function format."). "Sufficient structure exists when the claim language specifies the exact structure that performs the function in question without need to resort to other portions of the specification or extrinsic evidence for an adequate understanding of the structure." *TriMed, Inc. v. Stryker*

Corp., 514 F.3d 1256, 1259-60 (Fed. Cir. 2008). A claim term to which § 112, ¶ 6 applies is also known as a "means-plus-function" ("MPF") term. *See Williamson*, 792 F.3d at 1348.

It is undeniable that this term uses the word "means." Dr. Berall argues that the § 112, ¶ 6 presumption is rebutted because the term "display" connotes a tangible structure well known in the art. While a "display" may be well known in the art, the specification discusses many kinds of displays and does not specify the exact structure that performs the function in question or otherwise include enough particularity. This an MPF term.

The parties appear to agree that if this is an MPF, the function is "displaying the visual field at a preselected view" as stated in Claim 1. There is more disagreement about the corresponding structure. There is an insufficient basis to construe this term as requiring the display to be mountable to the laryngoscope, as proposed by Verathon. The word "mountable" does not appear in the patent. The prosecution history makes clear that this patent does not require the display to be mounted, though that is the preferred arrangement. Viewing the prosecution history as a whole, the Court finds no disclaimer of unmounted or unmountable screens. On the other hand, there is ample basis to construe this term as requiring the display be connected to the laryngoscope based on the specification, abstract, claims, and diagrams. See, e.g., Ex. 1, Abstract ("The camera is connected, typically via a fiberoptic cable, to a lightweight portable television screen, preferably mounted on the laryngoscope handle...."). The Court therefore adopts the corresponding structure proposed by Dr. Berall, "portable lightweight screen operatively connected to said camera."

C. "At a preselected location" (claim 1)

The Court agrees with Dr. Berall that no construction is needed for this term. This is a term that has no special meaning in the art. A jury can easily understand the meaning of

location and preselected. Verathon is not attempting to clarify the meaning of this term, but to insert an artificial limitation on the location of the display means, which the Court declines to do. There is no basis to import specific desired locations from the specification or prosecution history into construction of this claim term.

D. "Camera means [for observing a visual field]" (claims 1, 3, 11, 15)

It is undeniable that this term uses the word "means." Dr. Berall argues that the § 112, ¶ 6 presumption is rebutted because the term "camera means" connotes some structure and has a well-understood meaning. *See* Dkt. #370 at 21. The specification repeatedly refers to the camera as a specific structural component. *See id.* at 22. Unlike the display means, the Court agrees with Dr. Berall that the specification includes enough particularity as to this term and its structure, or to a class of structures that could be covered by this term. The presumption is rebutted, this is not an MPF term, and no construction is needed.

E. "Mounted on" (claims 1 and 15)

Claims 1 and 15 refer to the camera means being mounted on the blade of the laryngoscope. Verathon argues that "mounted on" is different than "mounted in" and that Dr. Berall's proposed construction ignores and renders superfluous the word "on." Verathon points out that the patent uses the term "mounted in" in claim 4 to refer to the power supply being mounted in the handle. Dr. Berall cites to a Federal Circuit case, arguing that "mounted on" was construed as "securely affixed or fastened to." Dkt. #370 at 23 (citing *Felix v. Am. Honda Motor Co.*, 562 F.3d 1167, 1179 (Fed. Cir. 2009)).

In Response, Verathon points out that the District Court in *Felix* construed the term "mounted" to mean "securely affixed or fastened to," and did not in fact construe the term "mounted on." Dkt. #380 at 13. This is true, however, the patent at issue in *Felix* did use the

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term "mounted" followed by the word "on," *e.g.* "a weathertight gasket mounted on said flange." 562 F.3d at 1177. The Federal Circuit went on to state:

The district court construed "mounted" to mean "securely affixed or fastened to." Literal Infringement Op. 2007 U.S. Dist. LEXIS 78564 at *3. Felix argues that "mounted" has the broader meaning of simply "positioned." Felix offers four arguments in support of this broader construction, each of which we reject.

First, Felix argues that the claims consistently use the term "mounted" or "mounting" "to relate the relative position of one item with another," rather than to denote affixing or fastening. Appellant's Br. at 21. Felix cites various examples from the claim language, including "a proximate end pivotally mounted in said compartment interior," "a pair of hinges each mounted on said vehicle bed," "a catch mounted on said compartment back wall," "a latch mounted on said lid lower surface," and "a knob mounted on said cable proximate end." Id. at 21 (quoting '625 patent col.4 11.7-9, 11, 16, 18, 23-24). Felix is correct that, "[b]ecause claim terms are normally used consistently throughout the patent, the usage of a term in one claim can often illuminate the meaning of the same term in other claims." Phillips, 415 F.3d at 1314. But nothing in the language of any of the claims requires or even suggests that "mounted" means simply "positioned" as Felix asserts. To the contrary, the use of "mounted" in the very claim terms that Felix cites strongly suggests that "mounted" means "securely affixed or fastened to." Specifically, claim 1 recites a catch "mounted" on a back wall of the storage compartment. '625 patent col.4 l.16. If the catch were merely "positioned" on the back wall without being securely affixed or fastened to the wall, it would fall off.

Id. at 1177-78.

Felix is not particularly illuminating either way, in that it did not construe the term "mounted on" the way Dr. Berall would have it and it did not distinguish "mounted on" from "mounted in" but rather discussed affixing versus positioning.

Mounting in a handle does not necessarily add the word "exterior" after the words "mounting on." Until one examines the prosecution history. *See* Dkt. #369 at 24. The Court agrees that, to obtain the '178 Patent, Dr. Berall expressly distinguished his claimed invention

from the George patent based on his camera being mounted on rather than mounted in the blade. The same can be said vis-à-vis Dr. Berall distinguishing his patent from the Hamlin patent. *Id.* Considering this history, the Court agrees with Verathon that Dr. Berall's contrasting use of "mounted on" versus "mounted in," confirm that "mounted on" means "fastened to the exterior of." The Court adopts Verathon's construction of "fastened to the exterior of."

F. "the blade having a proximal end connected to the handle and a distal end [projecting/extending] laterally therefrom" (claims 1 and 15)

The Court agrees with Dr. Berall that Verathon's proposal would "improper[ly] ... read limitations from a preferred embodiment described in the specification," in violation of longstanding precedent. Dkt. #370 at 29 (citing *Liebel-Flarsheim Co. v. Medrad, Inc.*, 358 F.3d 898, 913 (Fed. Cir. 2004)). The patent drawings do not limit the claims. The word "laterally" does not need to be further limited to a specific angle such as perpendicular. Although Dr. Berall describes one potential feature of his invention as "enabling" simultaneous direct and indirect intubation, nowhere does he state that direct intubation is essential to his invention, or required by every embodiment. No construction is needed.

G. "laryngoscope" in preamble of claims 1 and 15

The preambles of claims 1 and 15 recite a "laryngoscope," which the parties have agreed is limiting. Dr. Berall argues, "the parties agree that term 'laryngoscope' is... a 'handheld medical instrument for examining the larynx' (Berall's construction), but disagree regarding additional limitations that Verathon seeks to inject into this term. At bottom, Verathon seeks to read in limitations to limit the term 'laryngoscope' to only a subset of devices that all POSITAs call 'laryngoscopes', so that Verathon can argue that products it has marketed and sold as 'laryngoscopes' are not 'laryngoscopes.'" Dkt. #370 at 30.

The Court agrees with Dr. Berall that a laryngoscope is simply an instrument for examining the larynx and that further limitations are unwarranted. A person of ordinary skill in the art would readily understand this term.

IV. CONCLUSION

This Court has construed the disputed claim terms in this case as set forth above, and the Clerk is directed to send a copy of this Order to all counsel of record.

DATED this 4th day of November, 2022.

RICARDO S. MARTINEZ UNITED STATES DISTRICT JUDGE